

**CLAIMS:**

What is claimed is:

- 1 1. A method of indicating a status affected by the performance of an ALU  
2 mathematical operation, comprising:  
3 executing an ALU mathematical operation instruction on a set of source operands;  
4 determining that the ALU mathematical operation instruction corresponds to an ALU  
5 mathematical operation instruction with carry;  
6 producing a result based on the set of source operands in accordance with the ALU  
7 mathematical operation instruction; and  
8 setting a status flag based on the result.
- 1 2. The method according to claim 1, wherein the step of setting the status flag  
2 includes the step of determining that the result is a non-zero value.
- 1 3. The method according to claim 2, wherein the step of setting the status flag  
2 includes the step of clearing the status flag by writing a value of zero to the status flag.
- 1 4. The method according to claim 3, wherein the step of setting the status flag  
2 includes the step maintaining the value of zero in the status flag until an ALU  
3 mathematical operation instruction without carry is determined.

1 5. The method according to claim 1, wherein the step of setting the status flag  
2 includes the step of determining that the result is a zero value.  
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1 6. The method according to claim 5, wherein the step of setting the status flag  
2 includes the step of maintaining the value in the status flag.

1 7. A processor for indicating a status affected by the performance of an ALU  
2 mathematical operation, comprising:

3 an ALU operable to:

4 execute an ALU mathematical operation instruction on a set of source operands;

5 determine that the ALU mathematical operation instruction corresponds to an ALU  
6 mathematical operation instruction with carry;

7 produce a result based on the set of source operands in accordance with the ALU  
8 mathematical operation instruction; and

9 set a status flag based on the result.

1 8. The processor according to claim 7, further comprising the ALU operable to  
2 determine that the result is a non-zero value.

9. The processor according to claim 8, further comprising the ALU operable to clear  
1 the status flag by writing a value of zero to the status flag.

1 11. The processor according to claim 7, further comprising the ALU operable to  
2 determine that the result is a zero value.

1     12.     The processor according to claim 11, further comprising the ALU operable to  
2     maintain the value of the status flag.